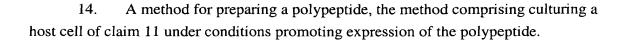
What is claimed is:

NEW CLAIM SET

- 1. An isolated polynucleotide comprising a nucleic acid molecule selected from the group consisting of:
 - a) the polynucleotide of SEQ ID NO:1;
 - b) the polynucleotide of SEQ ID NO:5;
 - c) the polynucleotide of SEQ ID NO:6;
 - d) the polynucleotide of SEQ ID NO:7; and,
- e) a polynucleotide that is capable of hybridizing to a polynucleotide of a)-d) under conditions of moderate stringency that include 50% formamide, 6X SSC at about 42°C, wherein the polypeptide encoded by the polynucleotide binds an IL-1R family member.
- 2. An isolated polynucleotide comprising a nucleic acid molecule that encodes a polypeptide selected from the group consisting of:
 - a) a polypeptide comprising SEQ ID NO:3;
 - b) a polypeptide comprising SEQ ID NO:8;
 - c) a polypeptide comprising SEQ ID NO:9;
 - d) a polypeptide comprising SEQ ID NO:10;
- e) a polypeptide that is at least 80% identical to a polypeptide of a)-d), wherein the polypeptide binds an IL-1R family member; and,
- f) a fragment of the polypeptide of a)-e), wherein the fragment binds an IL-1R family member.
- 3. An isolated polynucleotide comprising a nucleic acid molecule selected from the group consisting of:
 - a) the polynucleotide nucleotide of SEQ ID NO:2; and
- b) a polynucleotide that encodes a polypeptide comprising SEQ ID NO:4; and,
- c) a polynucleotide encoding a polypeptide comprising a polypeptide that is at least 80% identical SEQ ID NO:4, wherein the polypeptide binds an IL-1 family member.
- 4. An isolated polypeptide comprising a polypeptide selected from the group consisting of:

- a) a polypeptide comprising SEQ ID NO:3;
- b) a polypeptide comprising SEQ ID NO:8;
- c) a polypeptide comprising SEQ ID NO:9;
- d) a polypeptide comprising SEQ ID NO:10;
- e) a polypeptide that is at least 80% identical to a polypeptide of a)-d), wherein the polypeptide binds an IL-1R family member; and
- f) a fragment of a polypeptide of a)-e), wherein the fragment binds an IL-1R family member.
- 5. An isolated polypeptide comprising a polypeptide selected from the group consisting of:
 - a) the polypeptide of SEQ ID NO:4;
- b) a polypeptide that is at least 80% identical to a polypeptide of a), wherein the polypeptide binds an IL-1 family member; and
- c) a fragment of a polypeptide of a) or b), wherein the fragment binds an $\rm IL$ -1 family member.
 - 6. A vector comprising a polynucleotide of claim 1.
 - 7. A vector comprising a polynucleotide of claim 2.
 - 8. A vector comprising a polynucleotide of claim 3.
- 9. A host cell transformed or transfected with an expression vector of claim 6.
- 10. A host cell transformed or transfected with an expression vector of claim 7.
- 11. A host cell transformed or transfected with an expression vector of claim 8.
- 12. A method for preparing a polypeptide, the method comprising culturing a host cell of claim 9 under conditions promoting expression of the polypeptide.
- 13. A method for preparing a polypeptide, the method comprising culturing a host cell of claim 10 under conditions promoting expression of the polypeptide.



- 15. An oligomeric polypeptide comprising a polypeptide of claim 4.
- 16. An oligomeric polypeptide comprising a polypeptide of claim 5.
- 17. An antibody that binds a polypeptide of claim 4.
- 18. An antibody that binds a polypeptide of claim 5.
- 19. A method for screening a test compound to determine its affect on the ability of a IL-1 zeta polypeptide to increase or decrease IL-12 expression and or TNF-alpha expression, the method comprising:
- a) contacting a test compound and an IL-1 zeta polypeptide with cells capable of expressing IL-12 and/or TNF; and,
 - b) analyzing the culture for IL-12 and/or TNF,

wherein, if the IL-12 or TNF expression differs from the level of expression that is observed in the absence of test compound, the test compound affects IL-12 and/or TNF expression, and wherein, the IL-1 zeta polypeptide comprises a polypeptide selected from the group consisting of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10, or fragment of the polypeptide of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10 and the fragment is capable of upregulating IL-12 or TNF expression.

- 20. A method for increasing IL-12 production in an individual, the method comprising administering an IL-1 zeta polypeptide to the individual in an amount sufficient to increase IL-12 production, wherein the IL-1 zeta polypeptide comprises a polypeptide selected from the group consisting of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10, or fragment of the polypeptide of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10 and the fragment is capable of upregulating IL-12 or TNF expression.
- 21. A method for treating inflammation, the method comprising administering an antagonist of an IL-1 zeta polypeptide to an individual afflicted with an inflammatory condition, wherein the IL-1 zeta polypeptide comprises a polypeptide selected from the group consisting of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10, or

fragment of the polypeptide of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10 and the fragment is capable of upregulating IL-12 or TNF expression.

- 22. A method for treating auto-immune disease, the method comprising administering an antagonist of an IL-1 zeta polypeptide to an individual afflicted with an auto-immune disease, wherein the IL-1 zeta polypeptide comprises a polypeptide selected from the group consisting of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10, or fragment of the polypeptide of SEQ ID NO:3, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10 and the fragment is capable of upregulating IL-12 or TNF expression.
- 23. The method of claim 22 wherein the auto-immune disease is selected from the group consisting of rheumatoid arthritis, SLE, myasthenia gravis, insulin-dependent diabetes mellitus, thyroiditis.